

MS309W Subwoofer Owners' Manual

M O R D A U N T - S H O R T

Congratulations on purchasing this Mordaunt-Short subwoofer. To ensure optimum performance please read and retain this manual, then sit back, relax and enjoy!

Please read and retain this manual, it contains useful information that will ensure you get the very best from your new loudspeakers.

Note: This model is supplied in two mains voltage ratings. Please refer to product rear panel for rating.

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Important Safety Precautions

For safety reasons please read the following instructions and the enclosed Important Safety Information carefully before attempting to connect your subwoofer unit to the mains.

Warning

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



Caution

Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

Caution

To reduce the risk of electric shock, do not remove cover (or back). There are no user-serviceable parts inside. Please refer all servicing to a qualified engineer.

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

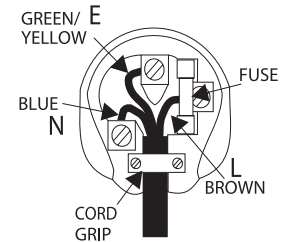
This product complies with European Low Voltage (73/23/EEC) and Electromagnetic Compatibility (89/336/EEC) Directives when used according to this instruction manual.



Plug Fitting Instructions (UK only)

The cord supplied with this appliance is factory fitted with a 13A mains plug fitted with a 3A fuse inside. If it is necessary to change the fuse, it is important that a 3A one is used. If the plug needs to be changed because it is not suitable for your socket, or becomes damaged, it should be cut off and an appropriate plug fitted following the wiring instructions below. The plug must then be disposed of safely, as insertion into a 13A socket is likely to cause an electrical hazard. Should it be necessary to fit a 3-pin BS mains plug to the power cord the wires should be fitted as shown in this diagram. The colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug. Connect them as follows:

- The wire which is coloured BLUE must be connected to the terminal which is marked with the letter 'N' or coloured BLACK
- The wire which is coloured BROWN must be connected to the terminal which is marked with the letter 'L' or coloured RED
- The wire which is coloured GREEN/YELLOW must be connected to the terminal which is marked with the letter 'E' or coloured GREEN.



Note

If a 13 Amp (BS 1363) type of plug is used a 3 Amp or 5 Amp fuse must be fitted, either in the plug or adaptor, or on the distribution board.

Important Safety Precautions

Read Instructions

All the safety and operating instructions should be read before the product is operated.

Retain Instructions

The safety and operating instructions should be retained for future reference.

Heed Warnings

All warnings on the product and the operating instructions should be adhered to.

Follow instructions

All operating and use instructions should be followed.

Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl or kitchen sink; in a wet basement, or near a swimming pool etc.

Accessories

Do not place this product on an unstable surface, stand, bracket or table. The product may fall, causing serious injury to child or adult, and serious damage to the product. Use only a surface, stand bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

A product and stand combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the combination to overturn.



Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

Grounding or Polarization

In some countries this product may be equipped with a polarized alternating-current line plug (a plug having one pin wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Important Safety Precautions

Power-Cord Protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and point where they exit from the product.

Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power-supply cord or plug is damaged
- b) If liquid has been spilled, or objects have fallen onto the product
- c) If the product has been exposed to rain or water
- d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation
- e) If the product has been dropped or damaged in any way
- f) When the product exhibits a distinct change in performance - this indicates a need for service.

Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorised substitutions may result in fire, electric shock, or other hazards.

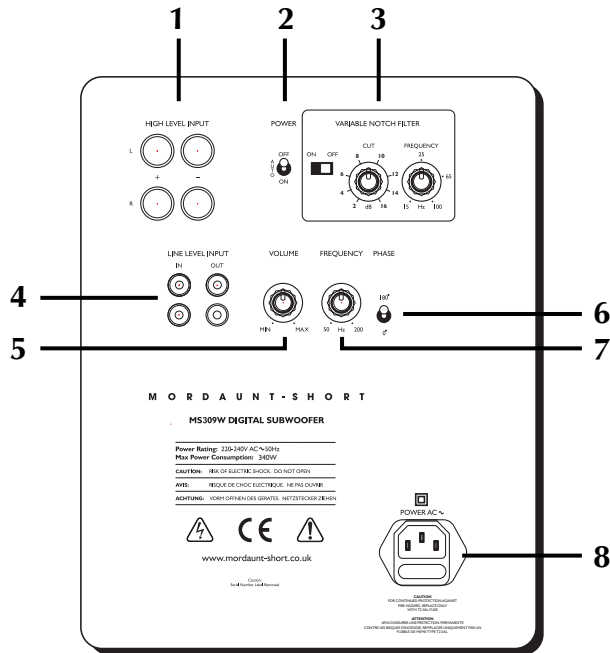
Safety Checks

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Subwoofer Controls



1. High Level Input

If your amplification system does not have a dedicated subwoofer line output, your subwoofer must be connected via the high level terminals on the rear panel. Connection should be made from the speaker terminals on your amplification system to the High Level Input Connections.

Note: To prevent damage to the amplifier, only connect using line level inputs OR high level inputs.

DO NOT USE BOTH METHODS OF CONNECTION AT THE SAME TIME

2. Power Auto/On

Switches the subwoofer (amplifier) power on or off. If switched to auto, the subwoofer will remain in standby mode until a signal is detected at the input. The unit will then automatically switch itself on. It will then automatically return to standby mode if no input signal is present for approximately five minutes. With the switch in the 'ON' position the unit remains permanently on. The LED positioned on the rear panel indicates whether the unit is on or in standby mode (red for standby and green when on).

Subwoofer Controls

3. Variable Notch Filter

For details on how to operate the Variable Notch Filter, see Page 10.

4. Line Level Input

If your amplification system has a dedicated subwoofer it should be connected to the line level input. If you have a mono connection from your amplifier you may use either connection. The output sockets can be used if an additional subwoofer is to be added to your system.

Note: To prevent damage to the amplifier, only connect using high level inputs OR line level inputs.

DO NOT USE BOTH METHODS OF CONNECTION AT THE SAME TIME

5. Volume

This control allows you to adjust the volume of low frequency output from your subwoofer amplifier to obtain the best sound/balance within your surroundings.

6. Phase

This allows you to match the time integration of your subwoofer to the other speakers in your system. This is especially useful when the subwoofer and any other speakers in your system are positioned at different distances from the listener.

7. Frequency

This is used to adjust the point at which the crossover will separate the low frequencies being used by the subwoofer from the higher frequencies played by the rest of the system. Raising the Low Frequency Cut-Off will increase the frequency range that the MS309W will reproduce. Lowering the Low Frequency Cut-Off will limit the range of frequencies reproduced.

8. AC Power Socket

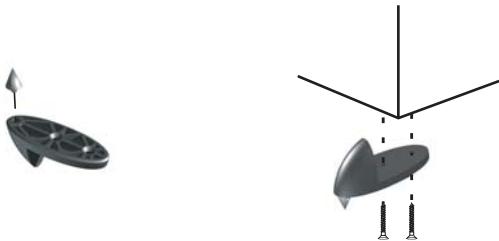
Use this socket to connect to an appropriate mains socket via the AC Power Cable supplied.

Attaching Feet to your Subwoofer

Your MS309W subwoofer comes with feet and spikes which must be fitted to space the down-firing ports the correct distance from the floor for optimum operation.

The spikes attach to the bottom of the feet (as shown below left).

There are eight pilot holes on the bottom of the speakers. The feet are located and secured here with the wood screws supplied (below right). Level as required.



Running In

Your new unit will require a total of approximately 10 hours of normal use to allow the components to settle into their working routine and reach their optimum performance.

Connecting via Line Input

If your amplification system has a dedicated subwoofer line output then you should connect your MS309W via the Line Input on the rear panel using a good quality phono lead. Note that if your amplification system has a mono subwoofer line out then use the 'L' socket on your MS309W.

Connecting via High Level Connections

Do not compromise the performance of your system by using inferior quality cables! Mordaunt-Short recommends that high quality cables of 16 gauge or higher be used. Your professional dealer will give you good advice.

Observing polarity is of the utmost importance while connecting your loudspeakers. Ensure that the red (+) terminals on your amplification system are connected to the red (+) on the subwoofer, and black (-) on your amplification system to black (-) on your subwoofer.

Important Note: Always unplug all A.C. powered components before making any loudspeaker or component connections. This will avoid the risk of electric shock or damage to your equipment

Getting The Most From Your Subwoofer

Positioning your Subwoofer

The positioning of your subwoofer will affect the quality of its performance. For example, locating the subwoofer near the wall will increase bass response. If the subwoofer is incorrectly placed it can sound "boomy", especially if it is too near a corner. It is worth experimenting with speaker positioning and controls (as explained in previous sections) to find the best balance of bass quantity and quality. A "boomy" sound delivers particular bass notes in the musical scale unexpectedly louder than others.

Variable Notch Filter Setup

If, after experimenting with the subwoofer position, you feel you still have a "boomy" sound then the notch filter will be able to attenuate the particular bass note, or frequency, where the "boom" occurs. You will need to use the supplied EQ Test CD, containing 11 special test tones. One of these tones should highlight the "boom" you are hearing. We recommend the accurate measurement of the test tones using an SPL meter, rather than just listening to the tones, though this can be attempted as follows:

If you can clearly hear one tone on the CD to be much louder than the others, the following steps can be taken.

Run the CD test tones to check for any loud problem tones. After locating the loudest problem tone, repeat on the CD and using a combination of the notch filter 'cut' and the 'frequency' control tune out the problem frequency, so that it matches as closely as possible the sound level of the adjacent test tone tracks.

Understandably, a much more accurate adjustment can be achieved with an SPL meter, which can be purchased from a good electrical store. To do so, follow the instructions below:

- 1) Position your subwoofer in its intended location (as discussed above), ensuring the notch filter is set to the OFF Position. Disconnect all other speakers in your system.
- 2) The SPL meter weighting should be set to C-weighted and the response time set to slow (if applicable).
- 3) The supplied test CD contains a reference tone, plus 11 modulated tones, each covering a narrow frequency range. These values correspond to those in the table provided.

Getting The Most From Your Subwoofer

- 4) Play Track 1 and adjust volume and your meter settings to a suitable level and record this value in the table provided - this is your reference value.
- 5) Play tracks 2-11 on the CD in turn. Sitting in the listening position, record in the table the reading shown on your meter for each track.
- 6) If any of the readings are greater than 2dB higher than the reference value then proceed as follows -
 - a) Switch the notch filter ON and ensure that the Cut control is set to its minimum value of 2dB.
 - b) Repeat the track that shows the highest SPL meter reading.
 - c) Adjust the frequency control of the notch filter until the reading on the SPL meter reaches its lowest value. Remember to leave the SPL meter in your listening position - this may require an assistant.
 - d) If this is still not enough to reduce the peak to the level of the reference value, increase the cut control - a maximum of 16dB of cut is available.
- 7) Repeat step 5 to confirm the problem frequency has been satisfactorily reduced. If it hasn't then repeat step 6.
- 8) If there is more than one peak that registers more than 2 dB above the reference value, always pick the larger peak. If more than one peak is present with the same value (e.g. 2 peaks of 4dB) then experiment with notching out each peak in turn - one will have a more noticeable effect when the whole system is playing music.

Test Tone	Freq (Hz)	SPL Meter Readings	
1	Ref.		
2	25-27		
3	27-29		
4	29-32		
5	32-36		
6	36-42		
7	42-48		
8	48-57		
9	57-71		
10	71-92		
11	92-110		

Taking Care of Your Subwoofer

Taking Care of your Subwoofer

Cabinets should be dusted and lightly polished as required. Do not use solvent based cleaners as they may damage the cabinet surface. Do not expose the cabinets to strong, direct sunlight, high temperatures, high humidity or allow them to become wet.

MS309W Technical Specifications

Frequency response:	35Hz – 200Hz
Sensitivity:	Line in, 70mV (at max output) Hi Level in, 1.3V (at max output)
Output Power:	150W
Mains Voltage:	220-240 Volts, 50 Hz 100-120 Volts, 50-60 Hz
Power Consumption:	340W
Drivers:	250mm Long Throw Aluminium CPC Woofer
X/Over Type:	Active/Variable from 50 – 200 Hz
Size (H x W x D)mm:	370 x 370 x 370
Size (H x W x D)Inches:	14.6 x 14.6 x 14.6
Weight:	15kg / 33Lbs

Mordaunt-Short's policy is one of continuous improvement. Design and specifications are therefore subject to change without prior notice

Limited Warranty

Mordaunt-Short warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Mordaunt-Short will repair or replace (at Mordaunt-Short's option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.

To obtain warranty service, please contact the Mordaunt-Short authorised dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Mordaunt-Short product, it can be returned by your dealer to Mordaunt-Short or an authorised Mordaunt-Short service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Mordaunt-Short authorised dealer. You may call Mordaunt-Short, Marantz America Inc. (in USA only) or your local country Mordaunt-Short distributor to confirm that you have an unaltered serial number and/or you purchased from a Mordaunt-Short authorised dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Mordaunt-Short or a Mordaunt-Short dealer, or authorised service agent which is authorised to do Mordaunt-Short warranty work. Any unauthorised repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

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Some countries and US states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the above exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other statutory rights, which vary from state to state or country to country.



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